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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,805	09/18/2003	David Anthony Cook	112025-0533	6624
24267	7590	11/01/2007		
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			EXAMINER GEREZGIHER, YEMANE M	
			ART UNIT	PAPER NUMBER
			2144	
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			11/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,805	Applicant(s) COOK, DAVID ANTHONY	
	Examiner Yemane M. Gerezgiher	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment received on 08/16/2007 has been entered and made of record. New claims 25-33 are added by the amendment. Thus, claims 1-33 are now pending in this application.

Response to Arguments

2. Applicant's arguments filed 08/16/2007 have been fully considered but they are not persuasive.

The applicant argues that Chen failed to teach, "if the router receives a negative acknowledgement of the initial message from the peer router., resending the initial message with a second predetermined value of the capability" (see Remarks, Page 14, Lines 3-6 & Lines 19-23).

Examiner respectfully disagrees with that contention. Chen disclosed "if the router receives a negative acknowledgement of the initial message from the peer router, deciding that the peer router does not support the new capability mode of operation" [see Chen Column 5, Line 20 through Column 6, Line 43, pointing to a "capability negotiation with BGP-4", which address the operation of a BGP speaker router determining capability of it's peer router via a NOTIFICATION including error subcode set to Unsupported Capability, which is received from the peer router and accordingly, determining if the peer router supports the new capability and if it does not support the new capability, re-sending another message with a different optional capability parameter]; and switching to an old capability mode of operation by resending the initial message with a second predetermined value of the capability [Column 6, Lines 4-65, replacing to a previously (old) announced capability]. It should be appreciated that the teachings of Chen includes by reference the

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teachings of “capability negotiation with BGP-4” which is now RFC 2842 and additional standards (see Chen Column 5, Line 24 through Column 6, Line 65)

For instance, the standard (RFC 2842) recites the following:

A BGP speaker determines that its peer doesn't support capabilities advertisement, if in response to an OPEN message that carries the Capabilities Optional Parameter, the speaker receives a NOTIFICATION message with the Error Subcode set to Unsupported Optional Parameter. In this case the speaker should attempt to re-establish a BGP connection with the peer without sending to the peer the Capabilities Optional Parameter. (See RFC 2842, Pages 1-2).

Such specific language in combination with the teachings of Chen categorically teaches the claimed/argued limitation as recited in the claim. As pointed out above, the recited prior art of record disclose sending a message with optional capability parameters and when a notification message indicating that that the peer router does not support the optional capability option is received, re-establishing a BGP connection without the capability option parameters as recited above. Thus, the recited sections of Chen in combination with the references incorporated by reference do read on the substance of the claimed function limitation. Thus, rejection is maintained for the reasons recited above.

Note: If further prosecution on the merits of the instant application is pursued, Applicant is strongly encouraged to further incorporate into the independent claim(s) a patentably distinct function limitations, details or feature(s) (if any) in order to at least overcome the rejection as applied and advance prosecution.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 7, 8, 12, 13, 15, 16, 20 and 21 rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent Number 6,553,423).

As per claims 1, 8, 12, 16, 21, 25 and 30 (e.g., exemplary Independent Claim 1), Chen disclosed a method for allowing a router to efficiently determine a capability and configuration of a peer router in a computer network [Abstract, and Column 3, Lines 10-36, determination of router's routing capabilities and Column 6, Lines 18-19 ("...a technique for dynamically exchanging or updating routing capabilities between neighboring peer routers in a computer network..."]], the method comprising the steps of: automatically determining which capability mode of operation the peer router supports by sending an initial message from the router to the peer router, the initial message including a first predetermined value of the capability [Column 3, Lines 10-36, dynamically announcing and updating of capabilities among routers and Column 5, Lines 7-21, ...interdomain routers ("neighboring peer routers") exchanging routing and reachability information...one of the neighboring peer routers sending a message... and Column 5, Lines 25-29, ...the message including therein predetermined parameters specified by the peer

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routers, the parameter field being a capability parameter introducing new features that may be supported by a peer router]; if the router receives a positive acknowledgement of the initial message from the peer router, determining that the peer router supports exchanges of messages using a new capability mode of operation; if the router receives a negative acknowledgement of the initial message from the peer router, deciding that the peer router does not support the new capability mode of operation [Column 5, Line 20 through Column 6, Line 43, pointing to a “capability negotiation with BGP-4”, which address the operation of a BGP speaker router determining capability of it's peer router via a NOTIFICATION including error subcode set to Unsupported Capability, which is received from the peer router and accordingly, determining if the peer router supports the new capability and if it does not support the new capability, re-sending another message with a different optional capability parameter]; and switching to an old capability mode of operation by resending the initial message with a second predetermined value of the capability [Column 6, Lines 4-65, replacing to a previously (old) announced capability].

As per claims 2, 13, 17, 26 and 31 wherein the step of deciding comprises the step of, if the router does not receive a response at all within a predetermined time, deciding that the peer router does not support the new capability mode of operation [Column 5, Lines 20-64, Chen disclosed determination of a peer router incapability when a peer router fails to reply to the message initiated by the router].

As per claims 7, 15, 20 and 29, Chen further disclosed upgrading the peer router to the new capability mode of operation [Chen, Column 6, Lines 44-53, adding new capability]; rebooting the peer router, thereby destroying an existing session between the routers [Column 6, Lines 4-16, TCP connection being closed and reset and re-establishing a connection]; establishing a new session by sending messages with the first predetermined value of the capability [Fig. 7, Column 5, Lines 29-

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41]; and communicating between the routers using messages with the first predetermined value of the capability [Chen, Column 5, Lines 29-41 and Column 6, Lines 31-56].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6, 9-11, 14, 18, 19, 22-24, 27, 28, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent Number 6,553,423) in view of Gill et al., ("The BGP TTL Security Hack (BTSH)").

As per claims 3-6, 9-11, 14, 18, 19, 22-24, 27, 28, 32 and 33 Chen substantially disclosed the invention and further taught that the initial message is Border Gateway Protocol (BGP) routing protocol message [Column 6, Lines 41-43]. However, Chen was silent about new capability parameter being a time-to-live (TTL) parameter defined by BGP TTL Security Hack (BTSH). However, a time-to-live (TTL) parameter defined by BGP TTL Security Hack (BTSH) was taught in the art at the time the invention was made [see, Gill et al. Internet draft, <draft-gill-btsh-02.txt>, published on May 2003, Abstract through § 4 (Security Considerations)]. Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Gill et al. related to BGP TTL Security Hack (BTSH) and have modified the teachings of Chen in order "to protect the BGP ... infrastructure

from CPU-utilization based attacks and provide a lower level of protection to multi-hop sessions”
(see Gill et al., Abstract and § Introduction).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane M. Gerezgiher whose telephone number is (571) 272-3927. The examiner can normally be reached on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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